

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An air conditioning apparatus controlling temperature and humidity of an airstream supplied to an air-conditioned space, comprising:
 - a cold and hot water circuit for the flow of cold and hot water, the cold and hot water circuit including:
 - four heat exchangers for effecting heat exchange between the cold and hot water and [[an]]said airstream, wherein two of the four heat exchangers are made up of air heat exchangers which mainly perform air sensible heat processing, at least one of the air heat exchangers effecting direct heat exchange between water in the water circuit and a first portion of said airstream and the other two heat exchangers are made up of adsorption heat exchangers which mainly perform air latent heat processing with an adsorbent supported on a surface thereof by effecting direct heat exchange between water in the water circuit and a second portion of said airstream, the first portion of said airstream being distinct from the second portion of said airstream,
 - a first switching mechanism for switching a direction of cold and hot water flow so that hot water flows through one of the adsorption heat exchangers while cold water flows through the other adsorption heat exchanger, and
 - a second switching mechanism for switching the direction of cold and hot water flow so that hot water flows through one of the air heat exchangers while cold water flows through the other air heat exchanger.

2-7. (Canceled).

8. (Currently Amended) The air conditioning apparatus of claim 1,
wherein said air conditioning apparatus is provided with a control unit which switches the flow of the cold and the hot water in the cold and hot water circuit and the distribution of air to thereby perform (a) a moisture absorbing operation in which, while cooling an adsorbent in an adsorption heat exchanger, moisture in [[an]]a portion of said airstream flowing through the adsorption heat exchanger is adsorbed by the adsorbent and (b) a moisture releasing operation in which, while heating an adsorbent in an adsorption heat exchanger, moisture is released to [[an]]a portion of said airstream flowing through the adsorption heat exchanger.

9. (Original) The air conditioning apparatus of claim 8,
wherein the control unit is provided with a switching interval setting part for setting, depending on the latent heat load, a time interval at which switching between the moisture absorbing operation and the moisture releasing operation is accomplished.

10. (Original) The air conditioning apparatus of claim 9,
wherein the switching interval setting part is configured such that as the latent heat load increases the time interval at which switching between the moisture absorbing operation and the moisture releasing operation is accomplished is set to a lower setting value.

11. (Withdrawn) The air conditioning apparatus of claim 1,
wherein said air conditioning apparatus includes a heat exchange element for effecting heat exchange between a first airstream and a second airstream and wherein at least one of the

first and second airstreams is adsorption air or regeneration air prior to its passage through the adsorption heat exchanger.

12. (Withdrawn) The air conditioning apparatus of claim 1,
wherein a latent heat processing element for performing air latent heat processing is provided in a distribution passageway for the distribution of adsorption or regeneration air which passes through the adsorption heat exchanger.

13. (Previously Presented) The air conditioning apparatus of claim 1,
wherein said air heat exchangers mainly perform air sensible heat processing by supplying an airstream to said air heat exchangers without passing through said adsorption heat exchangers.

14. (Previously Presented) The air conditioning apparatus of claim 1,
wherein said adsorption heat exchangers mainly perform air latent heat processing by supplying an airstream to said adsorption heat exchangers without passing through said air heat exchangers.

15. (Currently Amended) The air conditioning apparatus of claim 1, wherein the first switching mechanism is configured to switch water flow direction when one of the adsorption heat exchangers is saturated to regenerate said one of the adsorption heat exchangers, and the first switching mechanism comprises:

a first three way valve connected in fluid communication with

a first end of a first adsorption heat exchanger,
a source of cold water, and
a source of hot water;

a second three way valve connected in fluid communication with
a second end of the first adsorption heat exchanger, and
a fluid junction of the first switching mechanism to the second switching
mechanism;

a third three way valve connected in fluid communication with
a first end of a second adsorption heat exchanger,
the source of cold water, and
the source of hot water; and

a fourth three way valve connected in fluid communication with
a second end of the second adsorption heat exchanger, and
the fluid junction of the first switching mechanism to the second switching
mechanism.

16. (Currently Amended) The air conditioning apparatus of claim 1, wherein the second switching mechanism is configured to switch water flow direction when one of the adsorption heat exchangers is saturated to regenerate said one of the adsorption heat exchangers, and the second switching mechanism comprises:

a first three way valve connected in fluid communication with
a first end of a first air heat exchanger, and

a fluid junction of the first switching mechanism to the second switching mechanism;

a second three way valve connected in fluid communication with

 a second end of the first air heat exchanger,

 a source of cold water, and

 a source of hot water;

a third three way valve connected in fluid communication with

 a first end of a second air heat exchanger, and

 the fluid junction of the first switching mechanism to the second switching mechanism; and

a fourth three way valve connected in fluid communication with

 a second end of the second air heat exchanger,

 the source of cold water, and

 the source of hot water.

17. (Currently Amended) An air conditioning apparatus controlling temperature and humidity of an airstream supplied to an air-conditioned space, comprising:

a cold water circuit including

 a cold water supply fluidly connected to a first adsorption heat exchanger,

 the first adsorption heat exchanger performing latent heat processing by effecting direct heat exchange between water in the cold water circuit and a first portion of said airstream,

 and fluidly connected to a first air heat exchanger,

the first air heat exchanger performing air sensible heat processing by effecting
direct heat exchange between water in the cold water circuit and a second portion of said
airstream, and being fluidly connected to the cold water supply, wherein water circulates from
the cold water supply to the first adsorption heat exchanger, to the first air heat exchanger, and
back to the cold water supply; and

a hot water circuit including

a hot water supply fluidly connected to a second adsorption heat exchanger,
the second adsorption heat exchanger performing latent heat processing by
effecting direct heat exchange between water in the hot water circuit and air, and fluidly
connected to a second air heat exchanger,
the second air heat exchanger performing air sensible heat processing by effecting
direct heat exchange between water in the hot water circuit and air, and being fluidly connected
to the hot water supply, wherein water circulates from the hot water supply to the second
adsorption heat exchanger, to the second air heat exchanger, and back to the hot water supply.